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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,422	09/30/2005	Ashok C. Patel	PAT 53958W-2	3858

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Borden Ladner Gervais LLP
1100-100 Queen Street
Ottawa, ON K1P 1J9
CANADA

EXAMINER	
HOLLIDAY, JAIME MICHELE	
ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
12/28/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipinfo@blgcanada.com
portfolioprosecution@rim.com

Office Action Summary	Application No.	Applicant(s)	
	10/551,422	PATEL, ASHOK C.	
	Examiner	Art Unit	
	JAIME M. HOLLIDAY	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 September 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 9-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9-19* is/are rejected.

7)☒ Claim(s) *1 and 12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 22, 2009 has been entered.

Response to Arguments

2. Applicant's arguments with respect to **claims 1-5 and 9-19** have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. **Claims 1 and 12** are objected to because of the following informalities:

a) Claim 1, on line 7, replace "channel" with --channels-- after "list of potential," in order to correct a grammatical error.

b) Claim 12, on line 10, replace "channel" with --channels--, in order to correct a grammatical error.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. **Claims 1-9 and 12-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dent (US 6,393,284 B1)** in view of **Hicks et al. (6,052,590)**.

Consider **claim 1**, Dent clearly show and disclose a method of connecting a mobile device to a network having associated channels (cellular radiotelephone is then tuned to a selected one of the candidate control channels; signal is received on the selected one of the candidate control channels; TDMA [col. 3 lines 33-36, lines 64-67, col. 4 lines 21-27]), the method comprising: scanning a selected subset of the associated channels (a scanning strategy to locate narrowband AMPS or D-AMPS channels using a dual-mode cellular radiotelephone; the receiver is tuned to the region of the spectrum containing AMPS control channels [fig. 5, col. 8 lines 8-15]) to create a list of potential channels carrying signals having power in excess of a predetermined threshold (a test is made as to whether any measured average signal strength (*power*) exceeds a predetermined threshold; if yes, the receiver is tuned to the first of the 30 kHz channel steps located within the region of the highest average signal strength identified [col. 8 lines 8-27]); identifying channels carrying encoded signal in the list of potential channels (the AMPS channel containing the largest signal strength is identified; receiver is tuned to that channel and an attempt is made to decode an analog control channel (*encoded signal*) [col. 8 lines 24-36]).

However, although a list created with a group of channels with an average signal strength greater than a threshold is taught, Dent fails to explicitly teach that each of the channels in the potential list have an individual power greater than a threshold.

In the same field of endeavor, Hicks et al. clearly show and disclose scanning a selected subset of the associated channels in a predefined frequency band (scanning a channel band **30**; each channel band is divided into sub-bands [fig. 3, col. 4 lines 55-56]); to create a list of potential channels carrying signals having power in excess of a predetermined threshold (sub-band is canned to identify two strongest channels, which are checked in order against a pre-determined threshold; if the service provider of the channel is unacceptable, the mobile unit stores the channel number [fig. 3, col. 4 line 59-65, col. 5 lines 30-48] *wherein multiple channels are scanned that exceed a first RSS threshold reads on "to create a list"*); upon identifying at least one channel in the list of potential channels as carrying the encoded signal (if the channel has a RSS above the threshold, the channel is checked to see if it is in IS-136 format (*encoded signal*), and if so it is determined if it is a traffic or a control channel [fig. 3, col. 5 lines 4-15]): scanning one or more other subsets of the associated channels, which together with the selected subset of the associated channels comprise the predefined frequency band (the channel signal strength is compared against the minimum allowable RSS as determined by the F-BCCH message; if it fails, the next channel in the sub-band or the next sub-band is checked [fig. 3, col. 30-42]), to assemble a complete list of potential channels having a power in excess of the predetermined threshold (the channel signal strength is compared against the minimum allowable RSS as determined by the F-

BCCH message and if it passes, but if the service provider of the channel is unacceptable, the mobile unit stores the channel number [fig. 3, col. 4 line 59-65, col. 5 lines 30-48, col. 7 lines 5-9] *wherein multiple channels are scanned that exceed a first RSS threshold reads on "to create a list"*); identifying channels in the complete list of potential channels that carry the encoded signal (if the channel has a RSS above the threshold, the channel is checked to see if it is in IS-136 format (*encoded signal*), and if so it is determined if it is a traffic or a control channel [fig. 3, col. 5 lines 4-15] wherein all the previously stored channels are in IS-136 formats); and establishing a connection between the mobile device and the network associated with a channel carrying a strongest signal within the channels identified as carrying the encoded signal (if the service provider is acceptable, the received signal strength is checked against the requirements from F-BCCH message, if the channel is suitable for camping (acceptable signal strength), the mobile unit will camp on the channel [fig.4, col. 7 lines 34-50]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to scan the strongest channels in a sub-band at a time to find the one with a RSS higher than a threshold as taught by Hicks et al. in the system of Dent, in order to search and acquire an acceptable control channel.

Consider **claim 2**, Dent, as modified by Hicks et al., clearly shows and discloses the claimed invention **as applied to claim 1 above**, and in addition, Dent further discloses wherein the encoded signal is a GSM encoded signal and the network associated with the GSM encoded signal is a GSM network (an attempt is made to locate a GSM control channel [abstract, col. 9 lines 33-34, col. 1 lines 47-52]).

Consider **claim 3**, Dent, as modified by Hicks et al., clearly shows and discloses the claimed invention **as applied to claim 1 above**, and in addition, Dent further discloses initializing a timer after scanning the selected subset when the step of analyzing fails to identify channels carrying the encoded signal (if no region contains a signal over the predetermined threshold or no additional analog control channels can be found, then the wideband (GSM) mode is reselected; receiver is turned to a channel and an average signal strength measurement is made over a period of less than 6.6 ms; additional passes are made until three full passes have been made for a total time of 20 ms used [col. 8 lines 37-57]); and waiting until expiry of the timer before scanning a next selected subset (the greatest of the three signal strength measurements made on each channel, then the measurements are repeated using other channels (*next selected subset*) until the whole region of the D-AMPS spectrum has been scanned [fig. 5B, col. 8 lines 58-62]).

Consider **claim 4**, Dent, as modified by Hicks et al., clearly shows and discloses the claimed invention **as applied to claim 1 above**, and in addition, Hicks et al. further disclose wherein the one or more other subsets is distinct from the selected subset (a next sub-band is checked [fig. 2, col. 5 lines 48-52]).

Consider **claim 5**, Dent, as modified by Hicks et al., clearly shows and discloses the claimed invention **as applied to claim 4 above**, and in addition, Dent further discloses wherein the one or more other subsets is complementary to the selected subset (then the measurements are repeated using other channels until the whole region of the D-AMPS spectrum has been scanned [fig. 5B, col. 8 lines 58-62]).

Consider **claim 9**, Dent, as modified by Hicks et al., clearly shows and discloses the claimed invention **as applied to claim 1 above**, and in addition, Dent further discloses wherein the step of establishing the connection includes registering the mobile device to the network (when a cellular radiotelephone is powered on, it performs an initialization procedure with the cellular radiotelephone system; the cellular radiotelephone scans a plurality of channels and/or time slots in order to locate an appropriate control channel [col. 1 lines 30-35]) with an associated encoded signal having the strongest power (the AMPS channel containing the largest signal strength is identified; the receiver is tuned to that channel and an attempt is made to decode an analog control channel [col. 8 lines 8-36]).

Consider **claim 12**, Dent clearly shows and discloses a mobile device for connecting to an accessible wireless network transmitting an encoded signal in at least one of a plurality of channels in a frequency band (cellular radiotelephone is then tuned to a selected one of the candidate control channels; signal is received on the selected one of the candidate control channels; TDMA [col. 3 lines 33-36, lines 64-67, col. 4 lines 21-27]), the mobile device having a transceiver ([fig. 1- fig. 4]), the mobile device comprising: a channel subset selector for selecting a subset of the channels in the frequency band and for controlling the transceiver to scan the channels in the selected subset (a scanning strategy to locate narrowband AMPS or D-AMPS channels using a dual-mode cellular radiotelephone; the receiver is tuned to the region of the spectrum containing AMPS control channels [fig. 5, col. 8 lines 8-15]); an encoded signal detector for identifying channels scanned by the transceiver carrying an encoded signal having

power in excess of a predetermined threshold (a test is made as to whether any measured average signal strength (*power*) exceeds a predetermined threshold; if yes, the receiver is tuned to the first of the 30 kHz channel steps located within the region of the highest average signal strength identified [col. 8 lines 8-27]).

However, although a list created with a group of channels with an average signal strength greater than a threshold is taught, Dent fails to explicitly teach that each of the channels in the potential list have an individual power greater than a threshold.

In the same field of endeavor, Hicks et al. clearly show and disclose a transceiver for scanning channels in the frequency band (scanning a channel band **30**; mobile unit initiates a band scan procedure [fig. 3, col. 4 lines 20-24, 55-56]); upon the encoded signal detector identifying at least one channel in the list of potential channels as carrying the encoded signal (if the channel has a RSS above the threshold, the channel is checked to see if it is in IS-136 format (*encoded signal*), and if so it is determined if it is a traffic or a control channel [fig. 3, col. 5 lines 4-15]): the channel subset selector controlling the transceiver to scan one or more other subsets of the associated channels, which together with the selected subset of the associated channels comprise the predefined frequency band (the channel signal strength is compared against the minimum allowable RSS as determined by the F-BCCH message; if it fails, the next channel in the sub-band or the next sub-band is checked [fig. 3, col. 30-42]), to assemble a complete list of potential channels having a power in excess of the predetermined threshold (the channel signal strength is compared against the minimum allowable RSS as determined by the F-BCCH message and if it passes, but if the

service provider of the channel is unacceptable, the mobile unit stores the channel number [fig. 3, col. 4 line 59-65, col. 5 lines 30-48, col. 7 lines 5-9] *wherein multiple channels are scanned that exceed a first RSS threshold reads on "to create a list"*); the encoded signal detector identifying channels in the complete list of potential channels that carry the encoded signal (if the channel has a RSS above the threshold, the channel is checked to see if it is in IS-136 format (*encoded signal*), and if so it is determined if it is a traffic or a control channel [fig. 3, col. 5 lines 4-15] wherein all the previously stored channels are in IS-136 formats); and a network device registrar for registering the mobile device on an accessible network associated with a channel carrying a strongest signal within the channels identified as carrying the encoded signal (if the service provider is acceptable, the received signal strength is checked against the requirements from F-BCCH message, if the channel is suitable for camping (acceptable signal strength), the mobile unit will camp on the channel [fig.4, col. 7 lines 34-50] wherein camping on a control channel reads on "registering").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to scan the strongest channels in a sub-band at a time to find the one with a RSS higher than a threshold as taught by Hicks et al. in the system of Dent, in order to search and acquire an acceptable control channel.

Consider **claim 13**, Dent, as modified by Hicks et al., clearly shows and discloses the claimed invention **as applied to claim 12 above**, and in addition, Dent further discloses further including a timer for initiating a delay if the encoded signal detector does not detect the encoded signal in the subset of the channels (if no region contains

a signal over the predetermined threshold or no additional analog control channels can be found, then the wideband (GSM) mode is reselected; receiver is tuned to a channel and an average signal strength measurement is made over a period of less than 6.6 ms; additional passes are made until three full passes have been made for a total time of 20 ms used [col. 8 lines 37-57]); and for instructing the channel subset selector to select a subsequent subset of the channels upon expiry of the delay (the greatest of the three signal strength measurements made on each channel, then the measurements are repeated using other channels until the whole region of the D-AMPS spectrum has been scanned [fig. 5B, col. 8 lines 58-62]).

Consider **claim 14**, Dent, as modified by Hicks et al., clearly shows and discloses the claimed invention **as applied to claim 12 above**, and in addition, Dent further discloses wherein the accessible wireless network transmits a GSM encoded signal, and the encoded signal detector is a GSM signal detector (an attempt is made to locate a GSM control channel [abstract, col. 9 lines 33-34, col. 1 lines 47-52]).

Consider **claim 15**, Dent, as modified by Hicks et al., clearly shows and discloses the claimed invention **as applied to claim 12 above**, and in addition, Dent further discloses wherein the encoded signal detector includes means for requesting a complementary subset of the channels when a channel carrying an encoded signal is identified (then the measurements are repeated using other channels until the whole region of the D-AMPS spectrum has been scanned [fig. 5B, col. 8 lines 58-62]).

Consider **claim 16**, Dent, as modified by Hicks et al., clearly shows and discloses the claimed invention **as applied to claim 12 above**, and in addition, Dent further

discloses wherein the encoded signal detector includes means for requesting a complete subset of the channels when a channel carrying an encoded signal is identified (the AMPS channel containing the largest signal strength is identified; the receiver is tuned to that channel; if no analog control channel is properly decoded, then a determination is made as to whether additional signal strengths above threshold are present; if yes, then using the AMPS receiver bandwidth for all regions identified in the wideband scan with signal strengths over the predetermined threshold, until an AMPS control channel is found [col. 8 lines 25-36]).

Consider **claim 17**, Dent, as modified by Hicks et al., clearly shows and discloses the claimed invention **as applied to claim 13 above**, and in addition, Dent further discloses wherein the timer includes means for instructing the channel selector to select the one or more subsets of the channels upon expiry of the delay if the encoded signal detector did not identify a channel carrying the encoded signal (if no region contains a signal over the predetermined threshold or no additional analog control channels can be found, then the wideband (GSM) mode is reselected; receiver is turned to a channel and an average signal strength measurement is made over a period of less than 6.6 ms; additional passes are made until three full passes have been made for a total time of 20 ms used; the greatest of the three signal strength measurements made on each channel, then the measurements are repeated using other channels until the whole region of the D-AMPS spectrum has been scanned [fig. 5B, col. 8 lines 37-62]).

Consider **claim 18**, Dent, as modified by Hicks et al., clearly shows and discloses the claimed invention **as applied to claim 12 above**, and in addition, Dent further

discloses wherein the network device registrar includes means for registering the mobile device on the accessible network associated with the identified channel carrying the highest power encoded signal (when a cellular radiotelephone is powered on, it performs an initialization procedure with the cellular radiotelephone system; the cellular radiotelephone scans a plurality of channels and/or time slots in order to locate an appropriate control channel; the AMPS channel containing the largest signal strength is identified; the receiver is tuned to that channel and an attempt is made to decode an analog control channel [col. 1 lines 30-35, col. 8 lines 8-36]).

Consider **claim 19**, Dent, as modified by Hicks et al., clearly shows and discloses the claimed invention **as applied to claim 12 above**, and in addition, Dent further discloses wherein the network device registrar includes means for registering the mobile device on the network associated with the identified channel carrying the highest power encoded signal (when a cellular radiotelephone is powered on, it performs an initialization procedure with the cellular radiotelephone system; the cellular radiotelephone scans a plurality of channels and/or time slots in order to locate an appropriate control channel; the AMPS channel containing the largest signal strength is identified; the receiver is tuned to that channel and an attempt is made to decode an analog control channel [col. 1 lines 30-35, col. 8 lines 8-36]).

6. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Dent (US 6,393,284 B1)** in view of **Hicks et al. (6,052,590)**, and in further view of **Zicker (5,465,388)**.

Consider **claim 10**, and **as applied to claim 1 above**, Dent, as modified by Hicks et al., clearly shows and discloses the claimed invention except that the radiotelephone registers for emergency service.

In the same field of endeavor, Zicker clearly shows and discloses wherein the step of establishing the connection includes the step of registering the mobile device for emergency service to the network with an associated encoded signal having the strongest power (EPR, emergency portable cellular radiotelephone, achieves improved communication services because it does not prefer a system A channel when a stronger system B channel is available, or vice-versa; the best available signalling the best available signalling channel is selected for emergency communication services [abstract, col. 3 lines 35-45, col. 4 lines 24-36, col. 7 lines 7-12, lines 54-60]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to choose a channel based on signal strength as taught by Zicker in the system of Dent, as modified Hicks et al., in order to establish a communication link.

7. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Dent (US 6,393,284 B1)** in view of **Hicks et al. (6,052,590)**, and in further view of **Davey et al. (US 5,258,981)**.

Consider **claim 11**, and **as applied to claim 1 above**, Dent, as modified by Hicks et al., clearly shows and discloses the claimed invention except that the sets of channels are odd and even.

In the same field of endeavor, Davey et al. clearly show and disclose wherein the selected subset of the associated channels corresponds to even numbered channels in a frequency band, and the one or more other subsets of the associated channels correspond to odd numbered channels in the frequency band (secondary station when scanning non-adjacent carrier channels; scanning sequence will comprise the odd numbered carrier channels, a delay, and then the even numbered carrier channels [fig. 7, col. 7 line 57- col. 8 line 13]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to scan a fraction of the available channels as taught by Davey et al. in the system of Dent, as modified by Hicks et al., in order to accelerate scanning of cellular channels.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAIME M. HOLLIDAY whose telephone number is (571)272-8618. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jaime M Holliday/
Examiner, Art Unit 2617